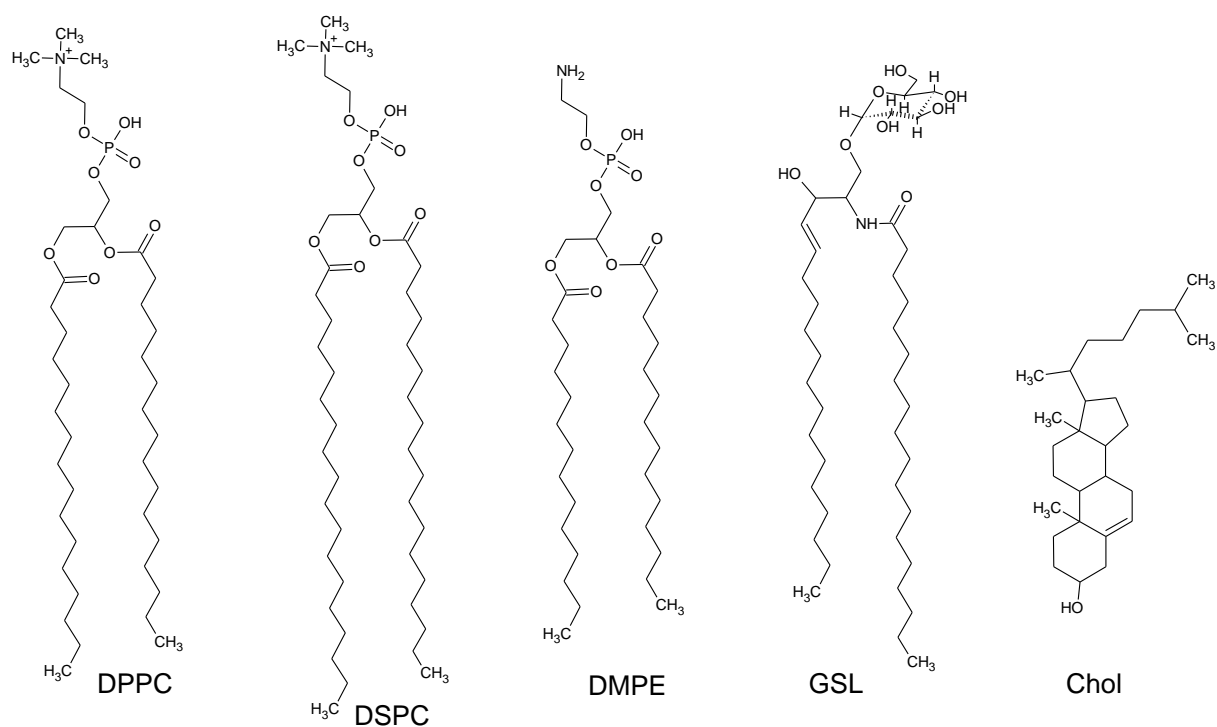
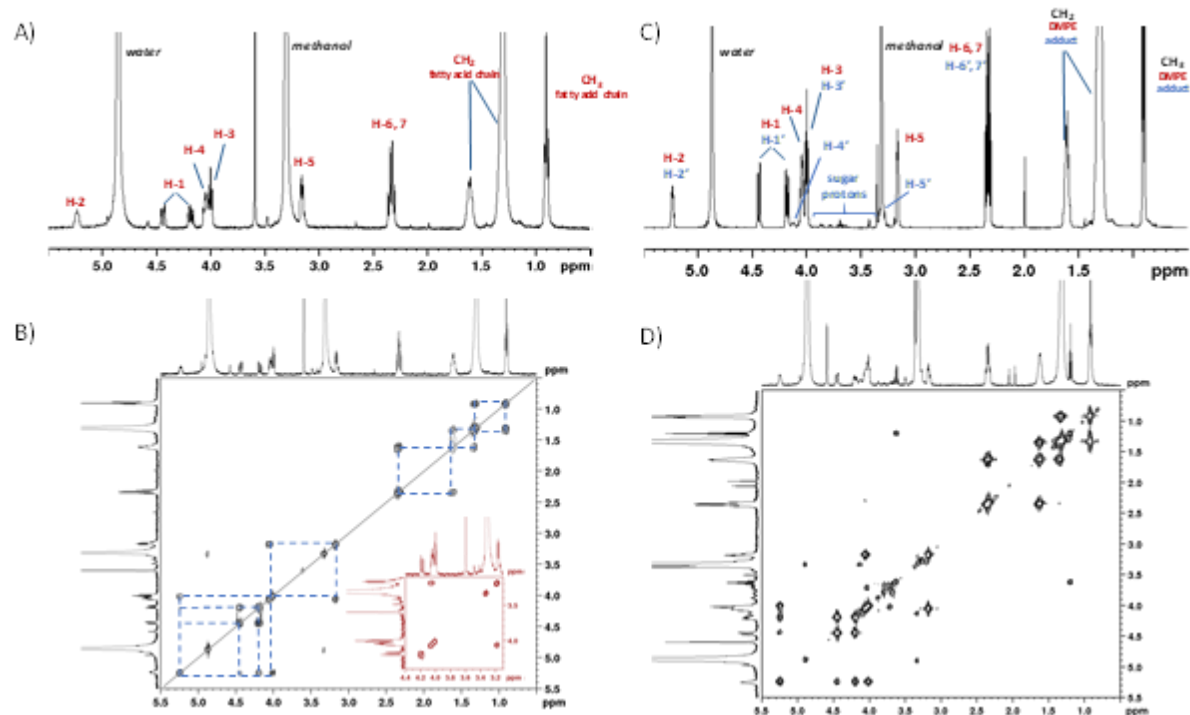


Supplementary Material



Supplemental Figure S1. Structure of lipids included in the membrane model. DPPC: di-palmitoyl-glycerophosphatidylcholine; DSPC: di-stearoyl-glycerophosphatidylcholine; DMPE: di-myristoyl-glycerophosphatidylethanolamine; GSL: glucosyl-sphingolipid; Chol: cholesterol.



Supplemental Figure S2. ¹H NMR (A) and ¹H/¹H COSY (B) spectra of unmodified DMPE in CD₃OD, and ¹H NMR (C) and ¹H/¹H COSY (D) spectra of the DMPE-glyc mixture in CD₃OD.

¹H NMR spectrum description: The ¹H NMR (600.13 MHz, CD₃OD) for the reaction mixture shows signals at δ = 0.90 (t, J= 7.0 Hz, CH₃ from DMPE and adduct), 1.26-1.34 (m, CH₂ from DMPE and adduct), 1.58-1.62 (m, CH₂ from DMPE and adduct), 2.32 and 2.34 (2t, J= 7.2 Hz, H-6, 7 from DMPE and H-6', 7' from adduct), 3.16 (t, J= 4.8 Hz, integrate to 2.00 protons, H-5 from DMPE), 3.26-3.28 (m, H-5' from adduct), 3.60-4.00 (several m, sugar residue from adduct), 4.00 (t, J= 5.9 Hz, H-3 from DMPE and H-3' from adduct), 4.03-4.06 (m, H-4 from DMPE), 4.11-4.14 (m, integrate to 0.0924 protons, H-4' from adduct), 4.18 (dd, J= 6.8 and 12 Hz, H-1 from DMPE and H-1' from adduct), 4.44 (dd, J= 3.2 and 12 Hz, H-1 from DMPE and H-1' from adduct), 5.22-5.24 (m, H-2 from DMPE and H-2' from adduct) ppm.